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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,613	04/11/2006	Egbert Classen	2003P01494WOUS	3154

7590 03/09/2010
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EXAMINER

BIRBACH, NAOMI L

ART UNIT	PAPER NUMBER
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1792

MAIL DATE	DELIVERY MODE
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03/09/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,613	Applicant(s) CLASSEN, EGBERT	
	Examiner NAOMI BIRBACH	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. Claims 11-25 are pending. Applicants amendments filed December 11, 2009 are acknowledged.
2. Applicant's arguments, see pages 8-10 and 12-13, filed 12/11/2009, with respect to the rejection of claims 11, 12 and 15-19 over USPN 5,725,001 to Vogel have been fully considered and are persuasive. The rejections of claims 11, 12 and 15-19 over USPN 5,725,001 to Vogel have been withdrawn. However, the rejections over GB 2052251 to Buttner are maintained.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 2052251 to Buttner.
5. As to claim 11, Buttner discloses an apparatus operable to carry out at least one cleaning process using cleaning liquid (Page 1, lines 5-10). The apparatus comprises an assembly for placing into contact with one another a cleaning liquid and at least one item to be cleaned (Page 1, lines 114-117). A system is provided for controlling the metering of at least one additive, such as a cleaning agent, into the cleaning liquid (Page 1, lines 6-10, 90-94). The system includes a sensor that determines the content of washing-active substances in the cleaning liquid during the

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cleaning process by measuring the pH, surface tension, or electrical conductivity of the cleaning liquid (Page 1, lines 95-99, 114-129; Page 2, lines 1-50). Buttner teaches that when the sensed content of washing-active substances is below a predetermined value, additional cleaning agent is metered to the cleaning liquid during the cleaning process, so there is inherently a dosing device (Page 2, lines 27-40, 85-90, 102-107). Buttner teaches that the control means controls the supply of water to the machine based on the measurement of the washing-active substances in the cleaning liquid, so it is fully capable of supplying fresh water to the cleaning liquid in the event that the content of washing-active substances is above a predetermined upper value (Page 1, lines 6-10, 82-100).

6. As to claim 12, Buttner further discloses that the system is regulated as a function of the content of washing-active substances in the cleaning liquid determined by the sensor by means of an electronic control (Page 1, 82-100).

7. As to claim 13, Buttner further discloses that the sensor is a tensiometer that determines the surface tension of the cleaning liquid, and accordingly the tenside content, by means of a bubble pressure method (Page 1, lines 115-129; Page 2, lines 1-20).

8. As to claim 14, applicant is reminded that a claim containing a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). The tensiometer disclosed by Buttner is fully capable of being surrounded by liquid in a cleaning process (Page 2, lines 4-7, 46-49).

Claim Rejections - 35 USC § 103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 15-20 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2052251 to Buttner et al.

11. As to claim 15, Buttner discloses a method for operating an appliance operable to carry out at least one cleaning process using a cleaning liquid (Page 1, lines 5-10). The method comprises determining the content in a cleaning liquid of washing-active substances that are supplied therinto via the supply of cleaning agent into the cleaning liquid by a cleaning agent supply system (Page 1, lines 82-100, 114-129; Page 2, lines 21-35, 50-60). In the event that the content of washing-active substances is determined to be below a predetermined value, additional cleaning agent is supplied to the cleaning liquid during the cleaning process (Page 1, lines 82-100; Page 2, lines 21-35, 50-60, and 96-107).

12. Buttner teaches that the controller uses the measured content of washing-active substances in the liquid to control the volume of water supplied to the washing machine and the number of changes of the water (Page 1, lines 82-100 Page 2, lines 21-35, 96-107). It is reasonably expected that this water is fresh water. While Buttner does not expressly disclose that this water is supplied during the cleaning process in the event that the content of washing-active substances is determined to be above a predetermined upper value, it would have been obvious to one of ordinary skill to supply additional water to the cleaning liquid to correct a potential overdosing of cleaning agent with a reasonable expectation of success (MPEP 2143 E).

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13. As to claim 16, Buttner further discloses that the addition of cleaning agent can be stopped once a pre-determined surface tension, which is indicative of the content of washing active-substances, of the washing liquid has been reached, so it is reasonably expected that the cleaning liquid is continuously sensed or sensed at short time intervals (Page 1, lines 114-129; Page 2, lines 8-14, 46-60). Further, it would have been obvious to one of ordinary skill in the art to modify censoring time intervals through routine experimentation in order to optimize cleaning (MPEP 2144.05 II).

14. As to claim 17, Buttner further discloses that the content of washing-active substances is determined via electronic means (Page 2, lines 97-107).

15. As to claim 18, Buttner further discloses that determining the content of washing-active substances in the cleaning liquid is performed with a sensor (Page 2, lines 108-113).

16. As to claim 19, Buttner further discloses that depending on the content of washing-active substances in the cleaning liquid determined via a sensor, the number of changes of water, which is part of the cleaning process, is determined, meaning that at least part of the cleaning process may be repeated (Page 2, lines 9-20, 115-121).

17. As to claim 20, Buttner further discloses that the cleaning process may be stopped once a certain surface tension, corresponding to a washing agent concentration, is reached. For example, a fifth rinsing operation, which is a part of the cleaning process normally performed, may be omitted depending on the content of washing active substances in the cleaning liquid determined by the sensor (Page 2, lines 8-20).

18. As to claim 23, Buttner discloses a method for operating an appliance that carries out at least one cleaning process using a cleaning liquid (Page 1, lines 5-10). The method comprises

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supplying a cleaning agent having washing-active substances into the cleaning liquid via a cleaning agent supply system and determining the content in a cleaning liquid of washing-active substances in the cleaning liquid using a sensor (Page 1, lines 82-100, 114-129; Page 2, lines 21-60). Buttner teaches that the pH of the washing solution, which is indicative of the content of washing-active substances, is compared to an optimum concentration value, which is both applicant's claimed upper and lower value (Page 2, lines 46-60). In the event that the content of washing-active substances is determined to be below the predetermined value, additional cleaning agent is supplied to the cleaning liquid during the cleaning process (Page 1, lines 82-100; Page 2, lines 21-35, 50-60, and 96-107).

19. Buttner teaches that the controller uses the measured content of washing-active substances in the liquid to control the volume of water supplied to the washing machine and the number of changes of the water (Page 1, lines 82-100 Page 2, lines 21-35, 96-107). It is reasonably expected that this water is fresh water. While Buttner does not expressly disclose supplying fresh water to the cleaning liquid during the at least one cleaning process when the content of washing-active substances is above the predetermined upper value, it would have been obvious to one of ordinary skill to supply additional water to the cleaning liquid to correct a potential overdosing of cleaning agent with a reasonable expectation of success, since the control system has the capability to control water supply (MPEP 2143 E).

20. As to claims 24 and 25, Buttner further discloses that the addition of cleaning agent can be stopped once a pre-determined surface tension, which is indicative of the content of washing active-substances, of the washing liquid has been reached, so it is reasonably expected that the cleaning liquid is continuously sensed or sensed at short time intervals and compared to the

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predetermined optimum value (Page 1, lines 114-129; Page 2, lines 8-14, 46-60). Further, it would have been obvious to one of ordinary skill in the art to modify censoring time intervals through routine experimentation in order to optimize cleaning (MPEP 2144.05 II).

21. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2052251 to Buttner et al. as applied to claim 11 above, and further in view of USPN 4,509,543 to Livingston et al.

22. Buttner is relied upon as discussed above with respect to the rejection of claim 11.

23. As to claims 21 and 22, Buttner does not expressly disclose that the appliance comprises a device for displaying values related to the content of washing-active substances in the cleaning liquid determined by the sensor, whereby an operator can add cleaning agents during the cleaning operation the basis of an indicated concentration or that the display device includes a component for generating an acoustic signal.

24. Livingston discloses a monitor (device for displaying values) and controller that is connected to probes (sensor) which determine the amount of detergent and display values to indicate if the detergent content is low (Col. 3, lines 55-65' Col. 4, lines 14-19). Detergent content is a value relating to the content of washing-active substances in the cleaning liquid because detergent contains washing-active substances. If the concentration of the detergent is too low, an operator can add cleaning agents during the cleaning operation (Col. 7, lines 63-68). The display device further includes a component for generating an acoustic signal (Col. 4, lines 14-26; 39-41).

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25. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the appliance taught by Buttner to include a device for displaying values relating to the detergent condition of the dishwasher as taught by Livingston so that an operator can be made aware of the condition of the washing-active substances so that modifications can be made if necessary. One of ordinary skill would have been motivated to include a component for generating an acoustic signal so that an operator can be notified to attend to the dishwasher, even when not in close proximity.

Response to Arguments

26. Applicant's arguments filed December 11, 2009 regarding GB 2052251 to Buttner et al. have been fully considered but they are not persuasive.

27. Applicant argues that Buttner does not disclose a sensor that determines the content of washing-active substances in the cleaning liquid during the cleaning process and a dosing device that alternately supplies additional cleaning agent to the cleaning liquid in the event that the sensed content of washing-active substances is below a predetermined lower value and supplies fresh water to the cleaning liquid during the at least one cleaning process in the event that the content of washing-active substances is above a predetermined upper value, as claimed in independent claim 11. Examiner respectfully disagrees.

28. Buttner expressly teaches “the method comprising the steps of measuring at least one of the surface tension, water hardness, and electrical conductivity of washing liquid for the machine with the aid of measuring means of the machine and so controlling the machine program by electrical control means in dependence on such measurement as to control at least one of the

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volume of water supplied to the machine, the number of changes or such water, and the metering of at least one additive” (Page 1, lines 85-94). Therefore, the dosing device is fully capable of supplying fresh water to the cleaning liquid in the event that the content of washing-active substances is above a predetermined upper value. In response to applicant's argument that Buttner does not explicitly disclose adding water during the cleaning process, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

29. Regarding claim 15, Applicants argue that it would not have been obvious to one of ordinary skill to supply additional water to the cleaning liquid to correct a potential overdosing of cleaning agent with a reasonable expectation of success. However, the Examiner maintains that while Buttner does not expressly disclose that this water is supplied in the event that the content of washing-active substances is determined to be above a predetermined upper value, it would have been obvious to one of ordinary skill to supply additional water to the cleaning liquid to correct a potential overdosing of cleaning agent with a reasonable expectation of success. See MPEP 2143 E.

30. Applicants argue that since Buttner discloses that the pH-value drops during the course of the washing program, it would not have been obvious to add additional water, which would further reduce the pH-value, when the Buttner et al. reference is concerned that the pH-value is brought up to a desired level. The examiner does not find this persuasive because Buttner does not preclude the addition of water in the case that the pH is too high. Buttner in fact is concerned with the **pH-value being at an optimum level**. While Buttner specifically teaches that

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additional detergent is added when the concentration drops during the washing process, one of ordinary skill would have similarly been concerned with the pH-value being above the optimum level, and thus would have been motivated to add additional water in this case.

31. Applicants additionally argue that Buttner appears to be referencing individual rinsing cycles when describing controlling at least one of the volume of water supplied to the machine and the number of changes of such water. However, since Buttner teaches that the control means controls the supply of water to the machine based on the measurement of the washing-active substances in the cleaning liquid (Page 1, lines 85-94), the control system so it is fully capable of supplying fresh water to the cleaning liquid during the washing cycle. Therefore, examiner maintains that it would have been obvious to one of ordinary skill in the art to modify Buttner to include supplying fresh water to the cleaning liquid during the washing cycle in the event that the content of washing-active substances is above the optimum value.

Conclusion

32. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

33. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAOMI BIRBACH whose telephone number is (571)270-7367.

The examiner can normally be reached on Monday-Friday, 8:00am-5:30pm.

35. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on 571-272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

36. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. B./

Naomi Birbach

Examiner, Art Unit 1792

/Michael Kornakov/

Supervisory Patent Examiner, Art Unit 1792